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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/466,627	12/17/1999	MING-LING LO	YO999-429	1398

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ANNE E. BARSCHALL
80 BENEDICT AVENUE
TARRYTOWN, NY 10591-4142

EXAMINER
NGUYEN, MAIKHANH

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/466,627	LO ET AL.
	Examiner	Art Unit	
	Maikhanh Nguyen	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _08/18/20_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-3,7-12,16-46,48-49,51-61,63-64 and 66-86_ is/are pending in the application.

    4a) Of the above claim(s) _10-12,16-21,49,51,52,64,and 66-67_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-3,7-9,22-46,48,53-61,63 and 68-86_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to communications: Appeal Brief filed 08/18/2004 to the

original application filed 12/17/1999.

2.   Claims 1-3, 7-9, 22-46, 48, 53-61, 63 and 68-86 are currently pending in this application.

Claims 4-6, 13-15, 47, 50, 62, and 65 have been canceled. Claims 1, 46, and 61 are

independent claims.

3.   Please cancel non-elected claims 10-12, 16-21, 49, 51-52, 64, and 66-67 in the next

response.

4.   In view of the Appeal Brief filed on 08/18/2004, PROSECUTION IS HEREBY

REOPENED. A new ground of rejection s set forth below.

To avoid abandonment of the application, appellant must exercise one of the following

two options:

       (a)   file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under

               37 CFR 1.113 (if this Office action is final); or,

       (b)   request reinstatement of the appeal.

5.   If reinstatement of the appeal is requested, such request must be accompanied by a

supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or

1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Priority

6.   Examiner acknowledges the claims for domestic priority under 35 U.S. C. 119 (e) to

provisional application 60/160334, which was filed 10/19/1999.

Claim Objections

7.   Claims 3, 9, 24, 27, 30, 33, 36, 39, 42, 45, and 78 are objected to because of the

following informalities: they are not clear whether they are dependent or independent

claims. Appropriate correction is required.

8.   Claims 1, 46, and 61 are objected to because of the following informalities: the

abbreviations used in these claims should be defined. Appropriate correction is required.

Rejections - 35 USC § 102

9.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b),by another filed in the United States
before the invention by the applicant for patent or (2)a patent granted on an application for patent by another filed in the United States
before the invention by the applicant for patent, except that an international application filed under the treaty defined in section
351(a)shall have the effects for the purposes of this subsection of an application filed in the United States only if the international
application designated the United States and was published under Article 21(2)of such treaty in the English language; or " (Emphasis
added.)

Claims 1-3, 8-9, 22-42, 44-46, 48, 53-61, 63, and 68-80 are rejected under 35 U.S.C.

102(e) as being anticipated by **Lennon** (U.S. 6,711,590 – filed 06/1999).

As to independent claim 1:

a.   Lennon teaches:

      (i)   using a pre-established DTD *(e.g., Document Type Definition 'DTD'*

            which defines a description scheme) corresponding to desired XML *(e.g.,*

            an extensible Markup-Language 'XML') (col.6, lines 13-26 and Appendix

            A; cols.14-15); and

      (ii)   based on the DTD and a plurality of data sources, adding annotations to

            the DTD to create an annotated DTD *(e.g., the annotations are added*

            ...all objects 202 of the selected class o type have been annotated; col.11,

            lines 21-54), such that an XML document generated from the annotated

            DTD is guaranteed to conform to the DTD *(e.g., XML document ...*

            according to the scheme in the DTD; Appendix B, col.15).

As to dependent claim 2:

Lennon teaches at least one medium readable *(e.g., items 606 and 612 in Fig.6)* by a data

processing device *(e.g., processor unit 605;col.13, line 13 and Fig.6)*.

As to dependent claim 3:

Lennon teaches at least one processor *(e.g., processor unit 605;col.13, line 13 and Fig.6)*

configured to use the at least one medium *(e.g., items 606 and 612 in Fig.6)* to produce

the XML document based on the annotated DTD.

As to dependent claim 8:

Lennon teaches at least one medium readable *(e.g., items 606 and 612 in Fig.6)* by a data processing device *(e.g., processor unit 605;col.13, line 13 and Fig.6).*

As to dependent claim 9:

It includes the same limitations as in claim 3, and is similarly rejected under the same rationale.

As to dependent claim 22:

Lennon teaches associating values and or formulas with a DTD *(col.15, Appendix B).*

As to dependent claim 23:

Lennon teaches at least one medium readable *(e.g., items 606 and 612 in Fig.6)* by a data processing device *(e.g., processor unit 605;col.13, line 13 and Fig.6).*

As to dependent claim 24:

It includes the same limitations as in claim 3, and is similarly rejected under the same rationale. Additionally, Lennon further teaches perform the associating operation *(see Fig.5 and the associated text).*

As to dependent claim 25:

Lennon teaches associating one or more lists of data objects or formulas producing data objects with each DTD construct having a repetition symbol at the end *(Appendix A; cols.13-14).*

As to dependent claim 26:

Lennon teaches at least one medium readable *(e.g., items 606 and 612 in Fig.6)* by a data processing device *(e.g., processor unit 605;col.13, line 13 and Fig.6).*

As to dependent claim 27:

Lennon teaches at least one medium *(e.g., items 606 and 612 in Fig.6)*; and at least one

processor *(e.g., processor unit 605;col.13, line 13 and Fig.6)* configured to use the at

least one medium to produce the XML document; and perform the associating operation

(see Fig.5 and the associated text).

As to dependent claim 28:

Lennon teaches the associating includes associating one or more lists of data objects or

formulas producing data objects with each DTD construct which is not a #PCDATA, a

choice list, or an attribute list, and does not end with a repetition symbol *(Appendix B,*

col.15).

As to dependent claim 29:

Lennon teaches at least one medium readable *(e.g., items 606 and 612 in Fig.6)* by a data

processing device *(e.g., processor unit 605;col.13, line 13 and Fig.6)*.

As to dependent claim 30:

It includes the same limitations as in claim 24, and is similarly rejected under the same

rationale.

As to dependent claim 31:

Lennon teaches associating includes associating a value or formula producing a value

with each PCDATA, choice list, or attribute definition *(Appendix B, col.15)*.

As to dependent claim 32:

Lee teaches at least one medium readable *(e.g., items 606 and 612 in Fig.6)* by a data

processing device *(e.g., processor unit 605; col.13, line 13 and Fig.6)*.

As to dependent claim 33:

It includes the same limitations as in claim 24, and is similarly rejected under the same

rationale.

As to dependent claim 34:

Lennon teaches associating includes, not necessarily in the following order: first

associating one or more lists of data objects *(Appendix A; cols. 13-14 and associated text)*,

or formulas producing data objects with a DTD construct; second associating at least one

of the lists or formulas with at least one variable name; and using the variable name as a

parameter in at least one other formula *(Appendix B; col.15 and the associated text)*.

As to dependent claim 35:

Lennon teaches at least one medium readable *(e.g., items 606 and 612 in Fig.6)* by a data

processing device *(e.g., processor unit 605; col.13, line 13 and Fig.6)*.

As to dependent claim 36:

It includes the same limitations as in claim 24, and is similarly rejected under the same

rationale.

As to dependent claim 37:

Lennon teaches associating at least one respective environment with a respective XML

element to be generated *(Appendix A; cols. 13-14)*.

As to dependent claim 38:

Lennon teaches at least one medium readable *(e.g., items 606 and 612 in Fig.6)* by a data

processing device *(e.g., processor unit 605;col.13, line 13 and Fig.6)*.

As to dependent claim 39:

It includes the same limitations as in claim 24, and is similarly rejected under the same

rationale.

As to dependent claim 40:

Lennon teaches the at least one environment comprises information from a parent XML

element of the respective XML element; and information from a binding specification of

a DTD construct associated with the respective XML element *(Appendix B; col.15 and*

the associated text).

As to dependent claim 41:

Lee teaches at least one medium readable *(e.g., items 606 and 612 in Fig.6)* by a data

processing device *(e.g., processor unit 605;col.13, line 13 and Fig.6).*

As to dependent claim 42:

It includes the same limitations as in claim 24, and is similarly rejected under the same

rationale.

As to dependent claim 44:

Lennon teaches at least one medium readable *(e.g., items 606 and 612 in Fig.6)* by a data

processing device *(e.g., processor unit 605; col.13, line 13 and Fig.6).*

As to dependent claim 45:

It includes the same limitations as in claim 24, and is similarly rejected under the same

rationale. Additionally, Lennon further recites sending operations *(col.11, lines 21-41).*

As to independent claim 46:

It is directed to at least one medium readable for implementing the method of claim 1,

and is similarly rejected under the same rationale.

As to dependent claim 48:

It includes the same limitations as in claim 7, and is similarly rejected under the same rationale.

As to dependent claim 53:

It includes the same limitations as in claim 22, and is similarly rejected under the same rationale.

As to dependent claim 54:

It includes the same limitations as in claim 25, and is similarly rejected under the same rationale.

As to dependent claim 55:

It includes the same limitations as in claim 28, and is similarly rejected under the same rationale.

As to dependent claim 56:

It includes the same limitations as in claim 31, and is similarly rejected under the same rationale.

As to dependent claim 57:

It includes the same limitations as in claim 34, and is similarly rejected under the same rationale.

As to dependent claim 58:

It includes the same limitations as in claim 37, and is similarly rejected under the same rationale.

As to dependent claim 59:

It includes the same limitations as in claim 40, and is similarly rejected under the same

rationale.

As to dependent claim 60:

It includes the same limitations as in claim 43, and is similarly rejected under the same

rationale.

<u>**As to independent claim 61**</u>:

The rejection of independent claim 1 above is incorporated herein in full. Additionally,

Lennon further teaches receiving data from at least one data source *(col.7, lines 20-31*

and Appendix A; cols.13-14); and at least one processor *(e.g., processor unit 605;col.13,*

line 13 and Fig.6).

As to dependent claim 63:

It includes the same limitations as in claim 7, and is similarly rejected under the same

rationale.

As to dependent claim 68:

It includes the same limitations as in claim 22, and is similarly rejected under the same

rationale.

As to dependent claim 69:

It includes the same limitations as in claim 25, and is similarly rejected under the same

rationale.

As to dependent claim 70:

It includes the same limitations as in claim 28, and is similarly rejected under the same

rationale.

As to dependent claim 71:

It includes the same limitations as in claim 31, and is similarly rejected under the same

rationale.

As to dependent claim 72:

It includes the same limitations as in claim 34, and is similarly rejected under the same

rationale.

As to dependent claims 73-75:

They include the same limitations as in claims 58-60, and are similarly rejected under the

same rationale.

As to dependent claims 76 and 79-80:

Lennon teaches the pre-established DTD corresponds to multiple heterogeneous data

sources *(col.6, lines 13-26).*

As to dependent claim 77:

Lennon teaches at least one medium readable *(e.g., items 606 and 612 in Fig.6)* by a data

processing device *(e.g., processor unit 605;col.13, line 13 and Fig.6).*

As to dependent claim 78:

It includes the same limitations as in claim 3, and is similarly rejected under the same

rationale.

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if
the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would
have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter
pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner
presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made
absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention
dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the
applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7, 43 and 84-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lennon in view of **Fittges et al.** (U.S. 6,754,648 – filed 09/2000, priority 09/1999).

As to dependent claim 7:

a.   Fittges teaches the data source is a relational database *(e.g., relational database;*

col.1, lines 36-48).

b.   It would have been obvious to one of ordinary skill in the art at the time the

invention was made to include the feature from Fittges in the system of Lennon

because it would have provided the capability for data records relating to given

search criteria is enabled by creating an index of the data records that maps a

record to a region of the database in which it is found.

As to dependent claim 43:

a.   Lennon teaches the specification comprises at least one parameter for receiving a value upon generation of an XML document *(Appendix A; cols. 13-14).*

b.   Fittges teaches the mapping includes at least one respective specification corresponding to at least one respective XML element *(col.6, lines 11-36 and Figs.3-5)*; and the method further comprises, upon generation of an XML document, sending the at least one parameter a value according to at least one variable/value pair in the at least one respective environment *(col.6, lines 41-60 and col.7, lines 41-59).*

c.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature from Fittges in the system of Lennon because it would have provided the capability for defining the corresponding storing functions which indicate where and which format a data element is stored in a database.

As to dependent claims 81-83:

a.   Fittges teaches the mapping returns at least one scalar value, at least one list of scalar values, and at least one SQL call result *(col.1, lines 36-48).*

b.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature from Fittges in the system of Lennon because it would have provided the capability for defining the corresponding storing functions which indicate where and which format a data element is stored in a database.

As to dependent claims 84-86:

a.   Fittges teaches the mapping is responsive to a user mapping specification *(col.6,*

lines 11-36 and Figs.3-5).

b.   It would have been obvious to one of ordinary skill in the art at the time the

invention was made to include the feature from Fittges in the system of Lennon

because it would have provided the capability for defining the corresponding

storing functions which indicate where and which format a data element is stored

in a database.

Response to Arguments

11.   Applicant's arguments filed 08/28/2003 have been fully considered but are moot in view

of the new ground(s) of rejection.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Srivastava et al.   U.S. Patent No. 6,549,922   issued: Apr. 15, 2003

Hind et al.   U.S. Patent No. 6,635,088   issued: Oct. 21, 2003

Arron Weiss, "XML Gets Down to Business", ACM, September 1999, pages 36-43.

Yoo et al., "Automatic Generation Algorithm of Uniform DTD for Structure

Documents", IEEE, 1999, pages 1095-1098.

Mecca et al., "Do we really need a new query language for XML?", www.w3c.org, 1998, pages 1-6.

Pekka Kilpelainen, "SGML & XML Content Models", IEEE, May 1998, pages 1-16.

13.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maikhanh Nguyen whose telephone number is (571) 272-4093. The examiner can normally be reached on Monday - Friday from 9:00am – 5:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H Feild can be reached on (571) 272-4090.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Maikhanh Nguyen
April 15, 2005

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER